

Remarks

The Applicant thanks the Examiner for the review of the application. After the Response to the second Office Action mailed on August 23, 2005, the application contained seventeen claims (2-12, 14-17, 19 and 20), of which three (4, 6 and 9) were independent.

With this response, claim 3 has been cancelled, and Claims 4, 6 and 9 have been amended to include all of the limitations of claim 3 regarding the tap density of the spherical powder. Thus, the application contains sixteen claims (2, 4-12, 14-17, 19 and 20), of which three (4, 6 and 9) are independent.

No fee is required for total claims because the fee already paid for twenty total claims exceeds that which is due for seventeen claims. No fee is required for independent claims either, as there are only three in the application.

Claims 4, 6 and 9 are not anticipated under 35 U.S.C. § 102(b) by Sachs et al.

The limitations of former claim 3 are now part of claim 4. Claim 4 is now equivalent to claim 3 before the present amendment, as claim 3 had depended from claim 4. The Office Action rejected former claim 3, as anticipated by Sachs.

Claim 4 now requires that a spherical metal particle slurry in a dispersion medium, with a specific particle size have a sediment density of at least 50% and a tap density of 3.0 g/cc or above. Claim 6 is for a production method using such powder to make a slurry. Claim 9 specifies sphericity of 0.7 to 1.0, and that the dispersion medium be water. It does not have a particle size or volume % content ratio.

The Office action asserts, with respect to former claim 3, that "since tap density of a material is known to depend on the composition, shape and size of the material, the silver-containing powder taught by Sachs inherently has the claimed tap density because the powder taught by Sachs et al. has the same shape and size and is of the same material as the applicant, i.e., silver." (Emphasis added.)

Applicant respectfully traverses the rejection, and the factual premise. While it is true that Sachs et al mentions particle size of silver particles, it is not true that tap density always depends on particle size in the same, predictable, manner.

First, consider particles of similar size. As shown in Fig. 1 of the present application, the tap density of Sample No. 1 differs from that of Sample No. 5, although both samples have the same particle size. Also, the tap density of Sample No. 2 differs from that of Sample No. 7, although both of them have almost the same particle size. This is because Samples 5 and 7 employ a spherical powder. Please note that Sachs et al does not mention that the powder disclosed therein is spherical. Sachs does not mention the particle shape. Thus, it is incorrect that the material disclosed in Sachs inherently is the same as what is claimed.

In addition, tap density depends variably on other factors as well as particle shape. For example, Sample Nos. 1-4 in fig. 1 show a tendency that tap density becomes smaller as the particle size becomes smaller. However, Sample Nos. 5-7 in

Fig. 1 show a tendency that tap density becomes higher as the particle size becomes smaller. Thus, very complex factors contribute to the tap density. One such factor is the surface state of the particle.

Sachs makes no mention of the surface state of the particles either. Thus, the mere fact that some of the particle's characteristics in Sachs may be similar or the same as some of the factors claimed, does not lead to the conclusion that the particles of Sachs would inherently have the same tap density or, that a slurry containing such particles would have the same properties.

Accordingly, applicants believe that none of the cited documents explicitly or inherently disclose the inventions as claimed, particularly regarding the tap density specified in the present claims, even if they refer to the particle size of silver particles. Thus, the references do not anticipate any of the independent claims 4, 6 or 9.

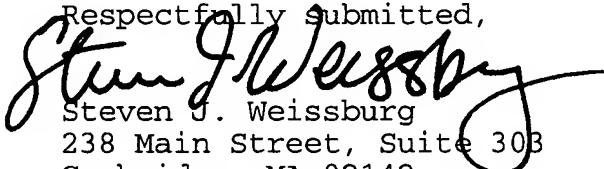
Applicant is of the opinion that the claims of the present application patentably distinguish over this art or any combination thereof.

Conditional Petition for Extension of Time in Which to  
Respond

This response is filed within the three month period set for response. No extension of time is required. If an extension is required, Applicant petitions conditionally for an extension of time under 37 CFR 1.136(a) to respond to the office action

mailed in this matter on Nov. 16, 2005, for an amount of time as required, up to and including the date of filing of this paper. If an additional extension of time is required, please consider this a petition therefor. The Commissioner is hereby authorized to charge the fee for any such required extension to Account 23-0833, in the name of the undersigned.

The Commissioner is authorized to charge payment of additional fees associated with this communication to Deposit Account No. 23-0833, in the name of the undersigned.

Respectfully submitted,  
  
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